

WHAT IS CLAIMED IS:

1. A method for using a database to develop a color product, said method comprising:

storing development information in said database,  
said development information including characteristics  
5 related to development of a plurality of color products;  
receiving first color information, said first color  
information including at least a first color;

identifying first development information in said  
database, said first development information including  
10 at least said first color;

receiving at least one physical characteristic of  
said color product; and

using said first development information to  
determine whether said at least one physical  
15 characteristic is compatible with said first color.

2. The method of claim 1, further comprising  
communicating said first development information between  
at least two color product development specialists.

3. The method of claim 2, wherein said step of  
communicating said first development information  
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comprises communicating a pointer to said development information.

4. The method of claim 1, wherein said received first color information is in a first format.

5. The method of claim 1, wherein at least one of said characteristics is a color characteristic.

6. The method of claim 5, wherein said step of storing said development information further includes storing said color characteristic in a plurality of formats.

7. The method of claim 6, wherein said plurality of formats comprise at least one of visual spectral data, CIEXYZ, CIELAB, CIELUV, CIEUVW, color space, chromaticity coordinates  $xy$ ,  $u'v'$  and  $uv$ , computer  
5 graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, ColorCurve notation, RAL notation, Pantone color number, DIC color number, Color Marketing Group

color name, and Color Association of the United States

10 color name.

8. The method of claim 1, further comprising  
translating said first color information from a first  
format to a second format.

9. The method of claim 8, further comprising:  
communicating said first development information between  
at least two color product development specialists;

communicating said first development information to  
5 at least one of said at least two color product  
development specialists in a third format in response to  
at least one characteristic corresponding to at least  
one of said at least two color product development  
specialists; and

10 wherein said characteristic is a characteristic of  
a device used by at least one of said at least two color  
product development specialists to generate a visibly  
perceptible representation of said first color.

10. The method of claim 9, wherein said third  
format is said first format.

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11. The method of claim 1, further comprising generating a visibly perceptible representation of said first color in response to said first color information.

12. The method of claim 1, wherein said characteristics include processes for incorporating a plurality of colors on said plurality of color products.

13. The method of claim 1, wherein said characteristics include at least one substrate characteristic used in said at least one color product.

14. The method of claim 1, wherein said characteristics include an ability of said color product to resist at least one of water, solvent, acid, alkali, temperature, humidity, abrasion, crocking, bending,  
5 light, and ultraviolet radiation.

15. The method of claim 14, further comprising generating a visibly perceptible representation of said first color in response to said at least one substrate characteristic.

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16. The method of claim 1, further comprising printing said color product using said first color.

17. The method of claim 16, wherein said printing step comprises at least one of flexographic printing, offset printing, and gravure printing methods.

18. The method of claim 1, wherein said receiving step comprises using a color measuring device.

19. The method of claim 18, wherein said color measuring device is a spectrophotometer.

20. The method of claim 1, further comprising selecting said first color information from a plurality of retrievable samples located in at least one electronic color library.

21. The method of claim 20, wherein said at least one electronic color library is set forth on at least one site processor.

22. The method of claim 1, further comprising communicating said first color information using a global communication network.

23. The method of claim 22, wherein said global communication network is the Internet.

24. The method of claim 1, further comprising communicating said first color information using a direct dial-up connection.

25. The method of claim 1, further comprising providing access to said database to at least two color product development specialists.

26. The method of claim 25, wherein said at least two color product specialists include at least one of a customer, a designer, a color separator, a printer, an ink manufacturer, a customer, a formulation chemist, a  
5 color compounder, a plastics molder, a pigment manufacturer, a dye manufacturer, a dyer, a retailer, a garment designer, a textile designer, an architectural

designer, an interior designer, a painting contractor,  
and a paint supplier.

27. The method of claim 25, wherein said database  
comprises data entry display screens enabling said at  
least two color product development specialists to enter  
their respective contributions to said development of  
5 said color product.

28. The method of claim 27, wherein said  
contributions relate to a development function performed  
by said at least two color product development  
specialists.

29. The method of claim 28, further comprising  
providing choices in said data entry display screens to  
said color product development specialists in response  
to said compatibility of said at least one physical  
5 characteristic with said first color.

30. The method of claim 29, further comprising  
stopping said color product development in response to

said compatibility of said at least one physical characteristic with said color product.

31. The method of claim 30, further comprising revising said color product development in response to said compatibility of said at least one physical characteristic with said first color.

32. The method of claim 28, further comprising providing choices in said data entry display screens to said color product development specialists in response to said respective contributions to said development of  
5 said color product.

33. The method of claim 32, further comprising stopping said color product development in response to said respective contributions to said development of said color product.

34. The method of claim 33, further comprising revising said color product development in response to said respective contributions to said development of said color product.

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35. A method of coordinating development of a color product, said method comprising:

storing development information in at least one database set forth on at least one site processor, said  
5 development information including characteristics related to development of a plurality of color products, said development information including processes for incorporating a plurality of colors on said plurality of color products;

10 receiving first color information from a first color product development specialist, said first color information including at least a first color;

identifying first development information in said at least one database, said first development  
15 information including at least said first color;

receiving at least one physical characteristic of said first color product;  
communicating said development information using a global communication network between at least two color  
20 product development specialists; and

using said first development information to determine whether said at least one physical characteristic is compatible with said first color.

36. The method of claim 35, wherein at least one of said characteristics is a color characteristic.

37. The method of claim 36, wherein said step of storing said development information further includes storing said color characteristic in a plurality of formats.

38. The method of claim 37, wherein said plurality of formats comprise at least one of visual spectral data, CIE XYZ, CIE LAB, CIE LUV, CIE UVW, color space, chromaticity coordinates  $xy$ ,  $u'v'$  and  $uv$ , computer  
5 graphics triplets including RGB, CMYK, HLS, HIS, HSV and HVC, Munsell notation, Swedish Natural Color System notation, ColorCurve notation, RAL notation, Pantone color number, DIC color number, Color Marketing Group color name, and Color Association of the United States  
10 color name.

39. The method of claim 35, wherein said identifying step comprises translating said first color information from a first format to a second format.

40. The method of claim 39, further comprising communicating said first development information to a second color product development specialist in a third format in response to at least one characteristic  
5 corresponding to said second color product development specialist.

41. The method of claim 40, wherein said third format is said first format.

42. The method of claim 35, further comprising generating a visibly perceptible representation of said first color in response to said first color information.

43. The method of claim 35, further comprising generating a visibly perceptible representation of said first color product in response to said at least one physical characteristic.

44. The method of claim 35, further comprising providing access to said at least one database to said at least two color product developers.

45. The method of claim 44, wherein said database comprises data entry display screens enabling said at least two color product development specialists to enter respective contributions to said development of said color product.

46. The method of claim 45, further comprising providing choices in said data entry display screens to said color product development specialists in response to said compatibility of at least one physical characteristic with said first color.

47. The method of claim 45, further comprising providing choices in said data entry display screens to said color product development specialists in response to said respective contributions to said development of said color product.

48. The method of claim 35, wherein said at least two color product specialists include at least one of a customer, a designer, a color separator, a printer, an ink manufacturer, a customer, a formulation chemist, a  
5 color compounder, a plastics molder, a pigment manufacturer, a dye manufacturer, a dyer, a retailer, a garment designer, a textile designer, an architectural designer, an interior designer, a painting contractor, and a paint supplier.

49. The method of claim 35, said receiving step further comprising using a color measuring device.

50. The method of claim 49, wherein said color measuring device is a spectrophotometer.

51. The method of claim 35, wherein said global communication network is the Internet.

52. The method of claim 35, further comprising electronically communicating said first color information using a direct dial-up connection.

53. A system to develop a color product, said system comprising:

a database storing development information, said development information including characteristics  
5 related to development of a plurality of color products;

a first software facility receiving first color information, said first color information including at least a first color;

a second software facility identifying first  
10 development information in said database, said first development information including at least said first color;

a third software facility receiving at least one physical characteristic of said color product; and

15 a fourth software facility using said first development information to determine whether said at least one physical characteristic is compatible with said first color.

54. The system of claim 53, further comprising a communication network wherein at least two color product development specialists communicate said first

development information using said communication  
5 network.

55. The system of claim 54, wherein said  
communicated first development information includes a  
pointer to said first development information.

56. The system of claim 53, wherein said received  
first color information is in a first format.

57. The system of claim 53, wherein at least one  
of said characteristics is a color characteristic.

58. The system of claim 57, wherein said  
development information further includes said color  
characteristic stored in a plurality of formats.

59. The system of claim 58, wherein said plurality  
of formats comprise at least one of visual spectral  
data, CIEXYZ, CIELAB, CIELUV, CIEUVW, color space,  
chromaticity coordinates  $xy$ ,  $u'v'$  and  $uv$ , computer  
5 graphics triplets including RGB, CMYK, HLS, HIS, HSV and  
HVC, Munsell notation, Swedish Natural Color System  
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notation, ColorCurve notation, RAL notation, Pantone  
color number, DIC color number, Color Marketing Group  
color name, and Color Association of the United States  
10 color name.

60. The system of claim 53, wherein said first  
color information is translated from a first format to a  
second format.

61. The system of claim 60, further comprising:  
a communication network wherein at least two color  
product development specialists communicate said first  
color development information using said communication  
5 network; and

said first development information being in a third  
format in response to at least one characteristic  
corresponding to at least one of said at least two color  
product development specialists, and wherein said  
10 characteristic is a characteristic of a device used by  
at least one of said at least two color product  
development specialists to generate a visibly  
perceptible representation of said first color.



62. The system of claim 61, wherein said third format is said first format.

63. The system of claim 53, further comprising a fifth software facility for generating a visibly perceptible representation of said first color in response to said first color information.

64. The system of claim 53, wherein said characteristics include at least one substrate characteristic.

65. The method of claim 64, wherein said characteristics include an ability of said color product to resist at least one of water, solvent, acid, alkali, temperature, humidity, abrasion, crocking, bending,  
5 light, and ultraviolet radiation.

66. The system of claim 65, further comprising a fifth software facility for generating a visibly perceptible representation of said first color in response to said at least one substrate characteristic.

67. The system of claim 53, further comprising a sixth software facility for printing said color product using said first color.

68. The system of claim 67, wherein said sixth software facility provides for at least one of flexographic printing, offset printing, and gravure printing methods.

69. The system of claim 53, wherein said third software facility further provides for using a color measuring device.

70. The system of claim 69, wherein said color measuring device is at least one of a spectrophotometer, a spectrodensitometer, a colorimeter, and a spectrophotometer.

71. The system of claim 53, wherein said second software facility further provides for selecting said first color information from a plurality of retrievable samples located in at least one electronic color

5 library.

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72. The system of claim 71, wherein said at least one electronic color library is set forth on at least one site processor.

73. The system of claim 53, further comprising a global communication network for communicating said first color information.

74. The system of claim 73, wherein said global communication network is the Internet.

75. The system of claim 53, further comprising a direct dial-up connection for communicating said first color information.

76. The system of claim 53, further comprising access to said database to at least two color product development specialists.

77. The system of claim 76, wherein said at least two color product development specialists include at

least one of a customer, a designer, a color separator,  
a printer, and an ink manufacturer.

78. The system of claim 76, wherein said database  
comprises data entry display screens enabling said at  
least two color product development specialists to enter  
their respective contributions to said development of  
5 said color product.

79. The system of claim 78, wherein said data  
entry display screens provide choices in to said color  
product development specialists in response to said  
respective contributions to said development of said  
5 color product.

80. The system of claim 79, wherein at least one  
of said first, second, third and fourth software  
facility notifies said color product development  
specialists to stop development of said color product in  
5 response to said respective contributions to said  
development of said color product.

81. The system of claim 80, wherein said at least  
one of said first, second, third and fourth software  
facility notifies said color product development  
specialists to revise said development of said color  
5 product in response to said respective contributions to  
said development of said color product.

82. The system of claim 78, wherein said data  
entry display screens provide choices to said color  
product development specialists in response to said  
compatibility of at least one physical characteristic  
5 with said first color.

83. The system of claim 82, wherein said at least  
one of said first, second, third and fourth software  
facility notifies said color product development  
specialists to stop development of said color product in  
5 response to said compatibility of said at least one  
physical characteristic with said first color.

84. The system of claim 83, wherein said at least  
one of said first, second, third and fourth software  
facility notifies said color product development  
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